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ABSTRACT

With the recognition that different kinds of students desire different kinds of educational experiences, many colleges and universities have been moving to develop innovative programs in the undergraduate domain. One approach that has been gaining in popularity is based on the "living-learning" concept. This concept is an attempt to blend, rather than fragment, a student's in and out-of-class experiences. Such a program, called the Experimental Freshman Year Program (EPP), was implemented at the University of California, Davis. The program was housed in a coed dormitory and centered on the theme "Self in Society," Since the desired changes in students were behavioral and attitudinal, a means of evaluation called the Student Orientations Survey (SOS) was developed. The impact that the EPP had on freshman students is considered highly desirable according to the results of the SOS. Students seem to feel that they were more a part of the learning experience, had purpose in studying other than the reward of a grade, and had achieved a means of organizing thoughts and selves. (HS)

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Changes in Students' Educational Attitudes: A Case Study of an Experimental Living-Learning Program

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Over the last decade, researchers in education have been highlighting the diversity in characteristics of students enrolling in our various colleges and universities. This increasing heterogeneity of students encompasses wide differences in family background, academic ability, personality characteristics, and educational attitudes, as Feldman and Newcomb (1969) have indicated in their recent review of research on college students.

With the added recognition that different kinds of students desire different kinds of educational experiences, many institutions of higher learning have been moving to develop innovative programs in the undergraduate domain. One approach that has been gaining in popularity is based on the "living-learning" concept -- an attempt to blend, rather than fragment, a student's in and out-of-class experiences. Although the content, philosophy, and format of these programs vary greatly, the goal of providing a mechanism for continued student-student and student-faculty interaction is thought to be desirable.

Two premises usually underlying the development of an experimental living-learning program are:

1) the program's educational assumptions and operating policies are sufficiently different from those students encounter in the regular curriculum.

2) the program will have some "impact" on the participants, especially the students.

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But before we can assess the effectiveness of an experimental program for undergraduates, we need to know something about the students who both do and do not desire to participate in these programs. In this way, we may not only compare experimental program students with their peers in the regular curriculum, but also have a base for analyzing any changes in student attitudes, abilities, and characteristics (Heist, P. and Bilorusky, J., 1971).

This last concern was the focus of a longitudinal study of student development in a living-learning experiment at the University of California, Davis. The Experimental Freshman Year (EFP) program was housed in a co-ed dormitory, Malcolm Hall, and centered on the theme "Self in Society." Under the direction of two faculty members in the Sociology department, all students who chose to participate in the program took one common "course" together for four units each quarter, and added regular university courses to round out their academic schedule.

Throughout the year, the experimental "course" touched on many topics: identity, awareness, norms and expectations, social issues and problems, and so on. Students met once weekly for a lecture or multi-media presentation, and were expected to undertake personalized independent study projects, or work cooperatively with other students on a joint project in various interest groups headed by upper division students.[2]

One aspect of the empirical research dealt with determining the attitudes students have regarding their college education, and how these attitudes change during the freshman year. Seven scales from a preliminary version of the Student Orientations Survey (SOS), developed by Richard M. Gray and this writer, was used

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[2]For a fuller description of the program, see: Morstain, B. "The Importance of Student Interaction in the Freshman Year," National Association of Student Personnel Administrators Journal, Volume 9, No. 4 (April 1972).

to assess attitudes towards independent study, formal education, student-faculty roles, grading policies, participatory decision-making in academic affairs, and so on.[3]

Brief descriptions of the S.O.S. scales used in this research are as follows:

Assignment Learning

The student who agrees with a high proportion of the items on this scale reports that he learns best by meeting specific, clear-cut, formal requirements. His mode of learning is linear, i.e. he likes to master specified blocks or units of knowledge sequentially.

Independent Study

The items on this scale help to identify the student who works best on his own. He prefers informal, unstructured courses in which he can set his own goals and standards and pursue his own interests. He appears to place a high value on freedom and independence.

Interaction

An egalitarian attitude toward faculty members characterizes the student with a high score on this scale. This individual sees students as fully competent to share educational decision-making with faculty. In this connection he expresses the belief that students should participate with faculty in planning courses and academic programs.

Assessment

An evaluation by those in authority seems to be quite important to the student who scores high on this scale. Grades and examinations are valued by this student because they provide not only some measure of his abilities but some incentive for using those abilities.

Achievement

This scale seeks to measure the degree to which a student is oriented toward (1) the achievement of *a priori* goals (usually some career in particular or success in general), (2) the acquisition of specific skills or credentials, (3) the satisfaction of receiving external rewards. The student who identifies with the contents of these items has a practical, goal-oriented outlook and tends to gauge various aspects of the college experience in terms of their future usefulness.

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[3] A copy of the current Form C of the S.O.S. and a preliminary manual outlining the development of the research inventory is available from the author, Office of Academic Planning and Evaluation, University of Delaware.

Affiliation

The student who prefers the manner of relating expressed in items on this scale enjoys belonging to organized extracurricular groups. He appears to value the assurance of friendships such affiliation provides. Furthermore, he stresses the importance of maintaining strong institutional loyalty and support.

Involvement

A strong interest in social and political affairs characterizes the student who has a high score on this scale. He sees students as having a rightful place in dealing with the public problems of our time. Further, he expresses a concern for the welfare of others and states his readiness to take a stand on public issues.

Results

In both the fall of 1970 and in a follow-up during the spring of 1971, students in Malcolm Hall (the experimental freshman year program) and students in Gilmore Hall (a comparison freshman group) were administered the Student Orientations Survey. Figure 1 presents the SOS profile for the two groups in the fall quarter.[4]

At the start of the freshman year, we find that the Gilmore students (all who chose not to participate in the experimental program) have significantly higher mean scores on the Assignment Learning, Assessment, and Achievement Scales. More of these students, when compared to Malcolm students, prefer regularized educational experiences, and place more emphasis or value on formal grading and peer competition. A relatively higher proportion of Gilmore students also have a more practical, career-oriented perspective toward their college education than do their experimental program counterparts.

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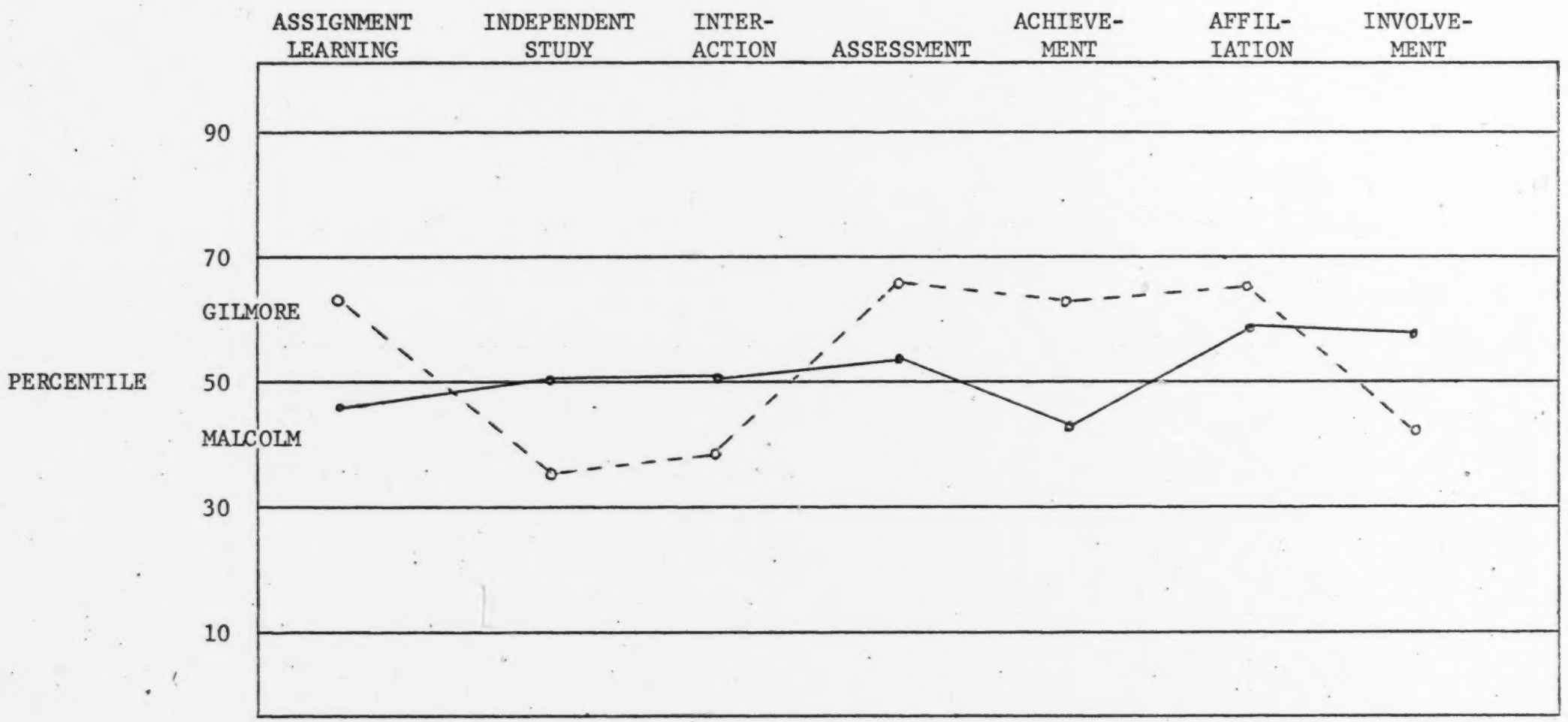
[4]In the following profiles, standard scores on the scales were converted to percentile ranks based on preliminary normative data on 573 freshmen at three institutions: University of Hawaii, Univ. of California, Davis, and St. Olaf's College (Minnesota). T-Tests were calculated to obtain the statistical significance of the difference between standard score means.

FIGURE 1

STUDENT ORIENTATIONS SURVEY - FALL 1970

MALCOLM - GILMORE
N = 95 N = 89



STANDARD SCORE MEAN	MALC	49	50	50	51	48	52	52
	GIL	53	46	47	54	53	54	48
STATISTICAL SIGNIFICANCE OF DIFFERENCE p<		.001	.01	.05	.05	.001	--	.01

Mean scores on the scales for Malcolm students tend to cluster around the 50th percentile rank based on data collected at the three institutions comprising the normative sample. However, when Malcolm students are compared to peers on their own campus (Gilmore freshmen), the EFP students do report somewhat more interest in having a participatory role with faculty in educational decision-making (Interaction), and tend to have more interest in self-directed learning experiences (Independent Study). Among the EFP students, there is also a higher interest in socio-political activities (Involvement) when compared to Gilmore students. Both groups, though, feel somewhat similarly about the desirability of relating to peers through more traditional collegiate activities (Affiliation).

These findings have been replicated at two other institutions with experimental freshman year programs. At both the University of Hawaii (New College), and St. Olaf (Paracollege), students engaged in these innovative programs -- upon entry to college -- had significantly different educational attitudes when compared to their peers in the regular curriculum.

If there are differences in students' attitudes in the fall, what happens after one year of college? For the Davis campus at the University of California, Figure 2 for Malcolm freshmen and Figure 3 for Gilmore freshmen highlight the changes in attitudes shown by students during their first year.[5]

From these two profiles, we note that more change has occurred for Malcolm students than for Gilmore students. That is, six of seven SOS scales showed significant change for students in the living-learning program, while only three of seven SOS scales had noticeable change for the comparison group.

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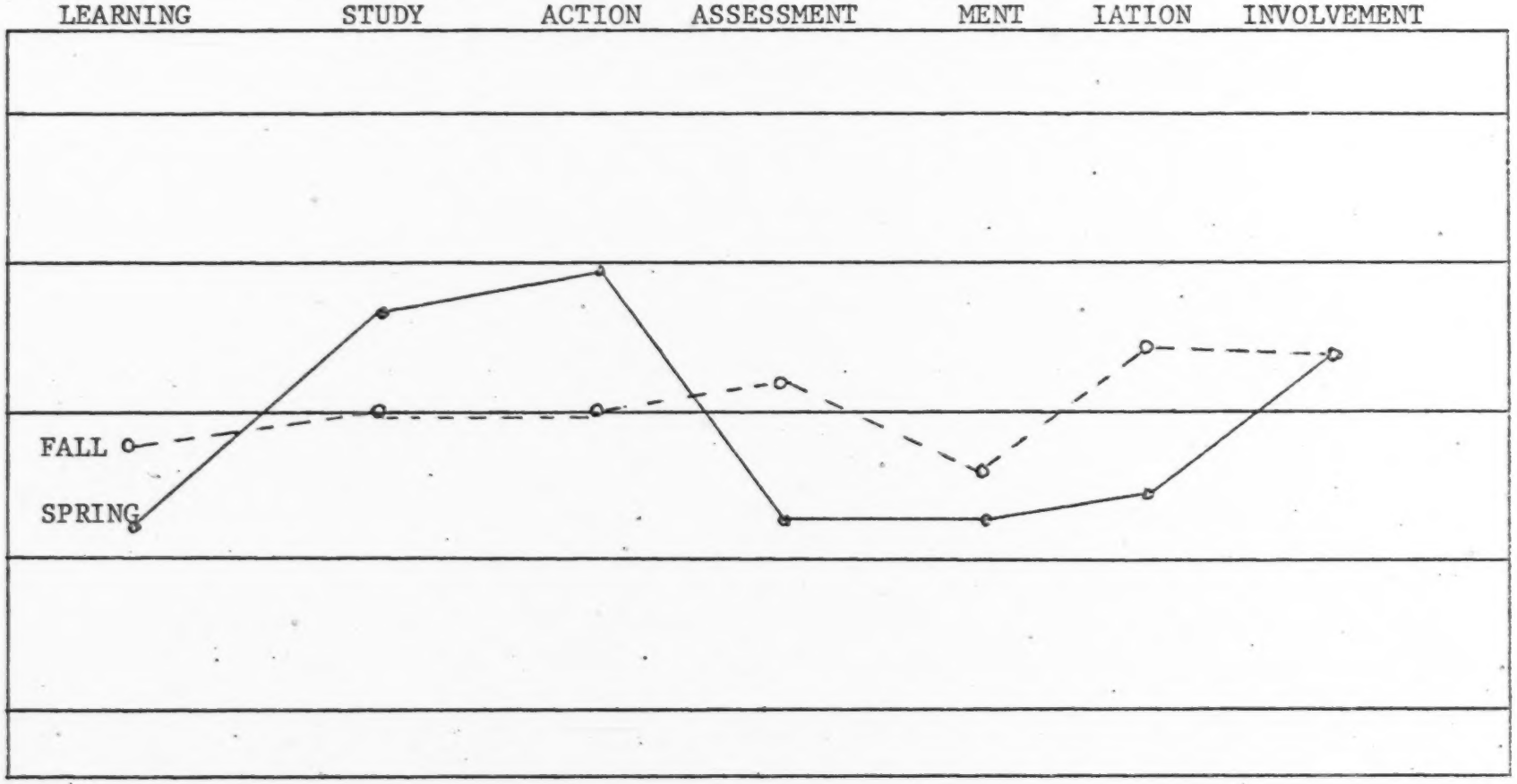
[5]Significance of scale score changes calculated by the correlated sample method (Ferguson, 1966).

FIGURE 2

STUDENT ORIENTATIONS SURVEY FALL - SPRING CHANGES

MALCOLM HALL (EFP) N = 95

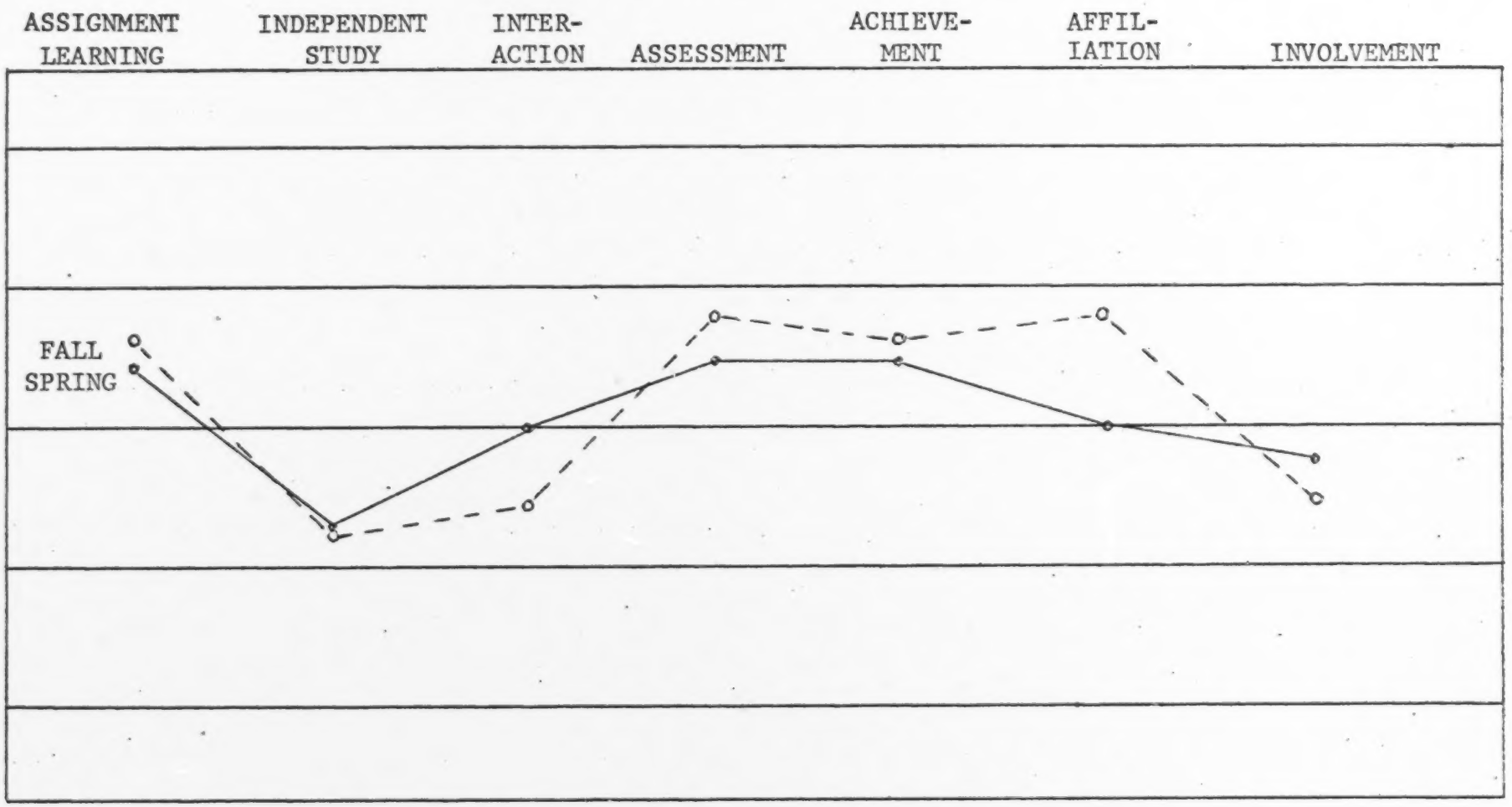


STANDARD SCORE MEAN	FALL	49	50	50	51	48	52	52
	SPRING	46	53	55	46	46	47	52
STATISTICAL SIGNIFICANCE OF DIFFERENCE	p<	.01	.001	.001	.001	.01	.001	--

FIGURE 3

STUDENT ORIENTATIONS SURVEY FALL - SPRING CHANGES

GILMORE HALL (Comp. Group) N = 89



STANDARD SCORE MEAN	FALL	53	46	47	54	53	54	48
	SPRING	52	46	50	52	52	50	49
STATISTICAL SIGNIFICANCE OF DIFFERENCE p<		--	--	.001	.05	--	.001	--

More specifically, we observe some overlap as well as some differences in the degree and direction of change for the two groups. Both Malcolm and Gilmore students' scale scores increased on the Interaction scale, and decreased on Assessment and Affiliation scales. On the average, then, more students in each group wanted to play a more active role in educational decision-making, placed less importance on grades and competition, and claimed less interest in a number of traditional extracurricular collegiate activities. But we must keep in mind that although the direction of change on these three scales are similar for each group, the absolute scale score differences between Malcolm and Gilmore students are still fairly substantial at the end of the spring term.

Other patterns of change are noteworthy. Malcolm students' mean scores decreased significantly on Assignment Learning and Achievement, and increased on Independent Study. On the other hand, Gilmore students' scores remained relatively constant on these scales from fall to spring. To conclude, we note that the fall to spring mean score changes shown by Malcolm students on the Student Orientations Survey were fairly substantial and most were statistically significant. Although Gilmore students showed some change from the fall on a couple of scales, Malcolm students, to a much greater extent:

a. decreased their desire for traditional lectures and formalized education

b. expressed a higher interest in self-directed or independent study

c. desired a more significant role in educational decision-making

d. placed less emphasis on grades and formalized evaluation by faculty

e. saw education more as a way of exploring various academic areas rather than solely preparing for a vocational future

Discussion

Though it is risky to attempt to determine causal reasons for the observed changes in educational attitudes, it seems insufficient to merely write these changes off as "accentuation of initial differences," even though that interpretation may be correct. As mentioned previously, Malcolm students were encouraged to take active roles in their education, encompassing participation in small group discussions, writing autobiographical analyses of their educational background and experiences, and designing independent study projects with the assistance of a research assistant or faculty person.

Even a partial listing of the areas of interest in which students did independent study projects is informative. Data from student interviews highlighted the diversity of areas explored by students:

- a study of social institutions in America
- the role of religion in society
- volunteer work with inmates of Vacaville prison
- visits to free schools (elementary level)
- the plight of individuals committed to mental institutions
- research on pesticides
- a study of food nutritional levels
- an analysis of Japanese Relocation Camps in World War II
- participation in a "seminar" on creative writing
- involvement in an Electronic Opera production

As students got into their projects, an interesting development occurred. The Malcolm Hall program at Davis was a "modified" living-learning program (students took most of their academic work in the regular University setting). It was not unexpected, then, that many Malcolm students noted a disparity between the freedom they had in pursuing EFP independent study and the relatively standardized set of requirements they found in the usual slate of freshman courses.

Although there were some disclaimers, over three-quarters of the Malcolm students felt very favorably about doing an independent study project. Some student comments are illustrative:

> "You don't have to hassle somebody else's idea of what is proper organization."
> "....let's you look at things which you think are important and that you can fine a use for."
>
> "I got more out of it because I could see why I needed to study this, rather than only being told to do it."
> "I learned more through participating than observing as in my regular courses."
>
> "You can do what you want to do, the way you want to do it."
>
> "It gave me quite a bit of exercise in organizing my thoughts... I had a feeling of accomplishment."
> "I got experience I never would have gotten in my other classes this year."
> "It's a personal thing...you get out what you put in."

One Malcolm woman talked at some length about her freshman year and her project:

> In my regular classes, most of my energy was involved in keeping up with the readings, keeping up with the lectures, getting a midterm in, cramming for finals. You can't really go out on your own. For the first time, when I got into my project in Malcolm, I really did something on my own that was worthwhile. I learned so much more, did so much reading, and I put more work into it and enjoyed it. My best reward was turning two high school drop-outs on to the free schools.

The above statement, and similar ones made during other interviews, may best epitomize the nature of the "impact" Malcolm Hall had on many students' educational attitudes. Though the extent of this impact has undoubtedly varied from student to student, the overall picture obtained from SOS findings and interview data is that the program has been relatively successful in helping students reexamine the role they play in their education, and has provided an avenue for their involvement in personally relevant self-directed study projects.

A major aspect of the Malcolm program was that the variety of educational activities during the year seemed to be premised on a concern for freshmen in their year of transition to college. Be it small group discussions or independent study projects, the program attempted to provide various options and alternatives to freshmen, alternatives sometimes remote to students at a large university during the first year of college. As a result the Malcolm program may have encouraged and supported students as they desired to assume a more active role in their education. Looking at the attitudinal changes from a developmental point of view (Sanford, 1967) many would argue that finding relatively more Malcom students wishing to become more self-directed in their education, desirous of pursuing independent study, and downplaying competitive, formalized education gives some indication that the program has had a desirable impact on students.

This is not to say that other innovative programs being developed for freshmen should attempt to duplicate the philosophies, assumptions, and approaches used in the Malcolm Hall program. Quite to the contrary. A diverse student body desires and can benefit from a diversity of educational programs. Regardless of the theme and approaches used, however, it is doubtful whether any program should overtly proclaim that it is established to "change" student attitudes or promote student development. Rather, various developmental goals, if they are to be achieved at all, might be more readily attained if they are viewed as a corollary of the program's major activities and directions. That is, as students participate in what they perceive to be challenging situations, and if there is some valued basis for continued student interaction, the program could provide a supportive climate in which student development can be fostered.

However, those of us involved in evaluating the effectiveness of living-learning programs realize we have a long way to go. In this study, prime concern was placed on freshmen's educational attitudes -- and what change had occurred in these during the first year. No analysis of academic aptitude or abilities was undertaken. Secondly, a longitudinal study of only nine months may not be a true indicator of the kinds of attitudinal changes these students will experience in the remainder of their formal academic years.

Perhaps most important, what are the behavioral outcomes of apparent attitude change? By the junior or senior year, can Malcolm Hall students be distinguished from their regular curriculum peers by what they have actually been involved in during college? If Malcolm Hall students, on the average, have educational attitudes which may be somewhat incongruent with the formal undergraduate system, what proportion of these students choose independent study majors? Is there an adaptational problem as Malcolm students prepare to interact with the regular curriculum at the start of the sophomore year? Due in part to the "disparity" perceived by EFP students when comparing their academic work in the Malcolm program with their work in regular University courses, do many ex-Malcolm students become involved in curriculum reform at the undergraduate level? Could this "disparity" be a force for academic change?

One could add many other questions to the list, and attempt to obtain empirical data in seeking insight into the dynamics of student development in experimental and regular academic programs. And this is just what needs to be done. Curriculum designers realize it's pretty easy to wrap an old product in a new package and call it "experimental." But if we have a strong commitment to evaluate as well as to experiment, not only can we better judge the "impact" of the program, we may help legitimize its very existence to the rest of the academic community.

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STUDENT ORIENTATIONS SURVEY
(Form C)

The Student Orientations Survey (S.O.S.) is a ten-scale questionnaire designed to assess the expressed attitudes of students toward various aspects of college and the community.

In its original form, the S.O.S. consisted of 100 items undifferentiated as to type or scale. Factor analyses and correlational data derived from the pretesting of items among entering freshmen at the University of California, Berkeley during the summer of 1970 (N = 225) and subsequent studies at two major state universities (U. C. Davis; Univ. of Hawaii) and one private college (St. Olaf's, Minn.), with a total additional N of 575, indicated that the expressed attitudes of responding students tend to cluster around one of two types of educational values.

These values may be described in the simplest terms as:

1. PREPARATORY
2. EXPLORATORY

That is, it appears that while college is most highly valued by some for its preparatory function - in terms of acquiring useful knowledge, skills, vocations, and social roles - it is valued most highly by others for its exploratory possibilities - i.e. for the opportunities it affords for exploring one's interests, ideas, and personal identity.

The differences between students who express a preference for statements reflecting one of these two values are relative differences, of course. No student can be described as purely "preparatory" or purely "exploratory" in his outlook. But most student respondents do tend to hold a certain cluster of attitudes or "orientations" which favor one value or the other.

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Factor analyses of responses to the S.O.S. in its original form produced seven of these "orientations" or scales of items, which were focused on five areas of the college experience and environment, namely:

1. Purpose (expressed motivation for attending college)
2. Process (expressed preferences for different modes of learning)
3. Power (expressed attitudes toward authority, especially faculty)
4. Peer Relations (expressed preference for different modes of association)
5. Public Position (expressed attitudes toward the community and society)

Because three of these five areas were represented by only <u>one</u> scale (of either the preparatory or exploratory type) in the original 7-scale S.O.S., the instrument was revised in April 1971. Many items with weak inter-correlation coefficients or poor discriminating power were eliminated and more than a score of new items were added to balance and to round out the questionnaire. In this way, empirical data informed theory which, in turn, informed the process of collecting empirical data.

In its present form, the S.O.S. deals with five areas of student orientations, each area comprised of two scales - one relating to the <u>preparatory</u> value of college, the other to its <u>exploratory</u> value. At present, each of the ten scales has eight items. In summary form, the two educational values, the five areas in which the S.O.S. appears to reflect those values, and the ten scales of items which provide for the actual assessment of students' expressed orientations to college are as follows:

STUDENT ORIENTATIONS TO COLLEGE

PREPARATORY ORIENTATIONS (5 Scales)	AREAS OF ORIENTATION	EXPLORATORY ORIENTATIONS (5 Scales)
	1. PURPOSE	
Achievement		Inquiry
	2. PROCESS	
Assignment Learning		Independent Study
	3. POWER	
Assessment		Interaction
	4. PEER RELATIONS	
Affiliation		Informal Association
	5. PUBLIC POSITION	
Affirmation		Involvement

STUDENT ORIENTATIONS SURVEY (S.O.S.) SCALE DESCRIPTIONS
(Form C)

I. Scales in the Area of Purpose: (Expressed motivation for attending college)

Achievement

This scale seeks to measure the degree to which a student is oriented toward (1) the achievement of a priori goals (usually some career in particular or success in general), (2) the acquisition of specific skills or credentials, (3) the satisfaction of receiving external rewards. The student who identifies with the contents of these items has a practical, goal-oriented outlook and tends to gauge various aspects of the college experience in terms of their future usefulness.

Items: 1/42, 1/12, 1/22, 1/52, 1/2, 1/62, 1/32, 2/1*
Coefficient Alpha Reliability .79

Inquiry

"Learning is its own reward" - in essence, this is the expressed motivation of the student who responds positively to most of the items on this scale. He concurs with statements which stress the value of insight, the perception of relationships, and knowing how to learn. He expresses curiosity about many things and appears to enjoy the satisfaction of inquiry whether or not it brings with it any other reward.

Items: 1/5, 1/65, 1/45, 1/15, 1/55, 1/25, 2/4, 1/35
Coefficient Alpha Reliability .69

II. Scales in the Area of Process: (Expressed preference for different modes of learning)

Assignment Learning

The student who agrees with a high proportion of the items on this scale reports that he learns best by meeting specific, clear-cut, formal requirements. His mode of learning is linear, i.e. he likes to master specified blocks or units of knowledge sequentially.

Items: 1/1, 1/31, 1/61, 1/11, 1/51, 1/21, 1/71, 1/41
Coefficient Alpha Reliability .86

Independent Study

The items on this scale help to identify the student who works best on his own. He prefers informal, unstructured courses in which he can set his own goals and standards and pursue his own interests. He appears to place a high value on freedom and independence.

Items: 1/44, 1/24, 1/14, 1/34, 1/64, 1/4, 1/54, 2/3
Coefficient Alpha Reliability .84

*List of items on each scale is by card and column number for keypunching purposes. Items that must be reversed when scoring are circled.

III. Scales in the Area of Power: (Expressed attitudes toward authority, especially faculty)

Assessment

An evaluation by those in authority seems to be quite important to the student who scores high on this scale. Grades and examinations are valued by this student because they provide not only some measure of his abilities but some incentive for using those abilities.

Items: 1/23, 1/63, 1/3, 1/53, 1/33, 1/13, 2/2, 1/43
Coefficient Alpha Reliability .80

Interaction

An egalitarian attitude toward faculty members characterizes the student with a high score on this scale. This individual sees students as fully competent to share educational decision-making with faculty. In this connection he expresses the belief that students should participate with faculty in planning courses and academic programs.

Items: 1/6, 1/46, 1/26, 1/56, 1/16, 1/66, 1/36, 2/5
Coefficient Alpha Reliability .83

IV. Scales in the Area of Peer-Relations: (Expressed preference for different modes of association)

Affiliation

The student who prefers the manner of relating expressed in items on this scale enjoys belonging to organized extracurricular groups. He appears to value the assurance of friendships such affiliation provides. Furthermore, he stresses the importance of maintaining strong institutional loyalty and support.

Items: 1/17, 1/47, 1/7, 1/67, 1/37, 1/27, 1/57, 2/6
Coefficient Alpha Reliability .79

Informal Association

Spontaneity marks the pattern of peer-relationships expressed by the student who responds favorably to this cluster of items. He expresses little need for affiliation with organized groups or for participation in formal, well-planned events. His association with fellow-students also tends to be unstructured.

Items: 1/29, 1/69, 1/9, 1/39, 1/59, 1/19, 1/49, 2/8
Coefficient Alpha Reliability .66

V. Scales in the Area of Public Position: (Expressed attitudes toward the community and society)

Affirmation

The student who agrees with items on this scale appears to affirm the values of a peaceful and orderly society. He tends to support public officials in their commitment to solve civic problems and feels "the majority can be counted on to make the right decisions." He would probably counsel care and caution in the area of social change.

Items: 1/8, 1/68, 1/18, 1/48, 1/28, 1/58, 1/38, 2/7
Coefficient Alpha Reliability .77

Involvement

A strong interest in social and political affairs characterizes the student who has a high score on this scale. He sees students as having a rightful place in dealing with the public problems of our time. Further, he expresses a concern for the welfare of others and states his readiness to take a stand on public issues.

Items: 1/10, 1/60, 1/30, 1/70, 1/20, 1/50, 1/40, 2/9
Coefficient Alpha Reliability .78

Note:

Form C has twenty additional items (2/10 through 2/29) which may be used in a future version of the Inventory.

STUDENT ORIENTATIONS SURVEY SCALES*
Mean Scale Scores for Freshmen in Experimental
Programs and Regular Curricula - Spring 1971

SOS SCALES	Univ. of Hawaii New College (N = 82) Raw Score	(Std) Score	Univ. of Hawaii Regular Curriculum (N = 68) Raw Score	(Std) Score	Univ. of Calif., Davis Malcolm Hall Prog. (N = 95) Raw Score	(Std) Score	Univ. of Calif., Davis Regular Curriculum (N = 89) Raw Score	(Std) Score	St. Olaf College Paracollege (N = 25) Raw Score	(Std) Score	St. Olaf College Regular Curriculum (N = 51) Raw Score	(Std) Score
Inquiry	18.0	(54)	15.7	(48)	16.9	(51)	15.9	(48)	19.4	(56)	16.3	(48)
	$p < .002$				$p < .05$				$p < .001$			
Independent Study	18.3	(53)	16.6	(51)	17.8	(53)	14.8	(46)	19.4	(55)	13.7	(44)
	$p < .01$				$p < .001$				$p < .001$			
Interaction	17.0	(52)	15.9	(49)	17.9	(54)	15.5	(49)	18.3	(54)	13.6	(44)
	N.S.				$p < .001$				$p < .001$			
Achievement	9.4	(46)	13.7	(56)	9.1	(46)	12.3	(52)	7.4	(42)	12.0	(52)
	$p < .001$				$p < .001$				$p < .002$			
Assignment Learning	10.7	(46)	15.5	(56)	11.8	(48)	14.6	(54)	9.8	(44)	15.3	(54)
	$p < .001$				$p < .001$				$p < .001$			
Assessment	5.1	(45)	9.4	(54)	6.0	(47)	8.5	(54)	5.5	(47)	9.0	(54)
	$p < .001$				$p < .001$				$p < .002$			
Informal Association	17.0	(52)	14.1	(44)	17.6	(55)	16.3	(50)	17.2	(52)	13.8	(44)
	$p < .001$				$p < .01$				$p < .002$			
Involvement	16.4	(48)	15.3	(46)	17.6	(53)	16.4	(48)	18.6	(56)	16.5	(51)
	N.S.				$p < .05$				$p < .02$			
Affiliation	9.1	(46)	12.0	(53)	10.3	(48)	11.4	(50)	8.9	(46)	13.3	(55)
	$p < .001$				N.S.				$p < .001$			
Affirmation	7.5	(47)	12.0	(56)	7.7	(47)	10.8	(54)	7.1	(44)	10.8	(54)
	$p < .001$				$p < .001$				$p < .001$			

*p level reported for t-tests computed on raw score difference (raw scores)

Raw Score - Standard Score Equivalents
for Student Orientations Survey Scales*

Raw Score	Inquiry	Indep. Study	Inter-Action	Achieve-ment	Assignmt Learning	Assessment	Informal Assoc.	Involve-ment	Affiliation	Affirm-ation	Raw Score
					STANDARD SCORES						
0	1.51	12.01	9.73	28.13	22.82	33.73	6.70	8.59	25.51	27.37	0
1	4.44	14.27	12.23	30.15	24.89	35.98	9.42	11.10	27.79	29.76	1
2	7.33	16.56	14.69	32.16	26.96	38.21	12.11	13.59	30.04	32.18	2
3	10.21	18.84	17.15	34.18	29.03	40.44	14.79	16.07	32.30	34.59	3
4	13.10	21.12	19.61	36.19	31.10	42.67	17.48	18.56	34.56	37.01	4
5	15.99	23.41	22.07	38.20	33.17	44.90	20.17	21.04	36.81	39.43	5
6	18.88	25.69	24.53	40.21	35.24	47.13	22.85	23.53	39.07	41.85	6
7	21.76	27.98	26.99	42.22	37.31	49.36	25.54	26.01	41.32	44.26	7
8	24.65	30.26	29.45	44.23	39.38	51.59	28.22	28.50	43.58	46.68	8
9	27.54	32.54	31.91	46.25	41.45	53.83	30.91	30.98	45.84	49.10	9
10	30.43	34.83	34.37	48.26	43.51	56.06	33.60	33.47	48.09	51.52	10
11	33.32	37.11	36.83	50.27	45.58	58.29	36.28	35.95	50.35	53.93	11
12	36.20	39.39	39.29	52.28	47.65	60.52	38.97	38.44	52.60	56.35	12
13	39.09	41.68	41.75	54.29	49.72	62.75	41.65	40.92	54.86	58.77	13
14	41.98	43.96	44.21	56.31	51.79	64.98	44.34	43.41	57.11	61.18	14
15	44.87	46.25	46.68	58.32	53.86	67.21	47.03	45.89	59.37	63.60	15
16	47.75	48.53	49.14	60.33	55.93	69.44	49.71	48.38	61.63	66.02	16
17	50.64	50.81	51.60	62.34	58.00	71.67	52.40	50.86	63.88	68.44	17
18	53.53	53.10	54.06	64.35	60.07	73.90	55.08	53.35	66.14	70.85	18
19	56.42	55.38	56.52	66.36	62.14	76.13	57.77	55.83	68.39	73.27	19
20	59.30	57.66	58.98	68.38	64.21	78.37	60.46	58.31	70.65	75.69	20
21	62.19	59.95	61.44	70.39	66.28	80.60	63.14	60.80	72.90	78.10	21
22	65.08	62.23	63.90	72.40	68.35	82.83	65.83	63.28	75.16	80.52	22
23	67.97	64.52	66.36	74.41	70.42	85.06	68.51	65.77	77.42	82.94	23
24	70.85	66.80	68.82	76.42	72.48	87.29	71.20	68.25	79.67	85.36	24
Mean	16.78	16.64	16.35	10.87	13.13	7.29	16.11	16.65	10.85	9.37	
Std.Dev.	3.46	4.38	4.06	4.97	4.83	4.48	3.72	4.02	4.43	4.14	

*Based on spring 1971 testing of 410 freshmen at three institutions: Univ. of Hawaii (N=150), Univ. of California, Davis (N=184), St. Olaf College (N=76)

STUDENT ORIENTATIONS SURVEY
(Form C)

The following statements express a variety of attitudes toward education. Some may be overstated, others understated. For each statement indicate how closely it reflects your own attitude, using the following code:

0 = Not at all like my attitude
1 = Not very much like my attitude
2 = Reflects my attitude somewhat
3 = Closely reflects my attitude

If some statements seem to have meanings either similar or opposite to other statements, please do not be concerned and do not make any effort to see that your responses match one another. Please mark each statement according to the way it strikes you on first reading, either 0, 1, 2, or 3.

(1) _____ I prefer classroom assignments which make it clear exactly what is expected.

(2) _____ I am primarily interested in a specialized area of learning that relates directly to my intended career.

(3) _____ I prefer graded courses to pass/fail courses.

(4) _____ When a subject really interests me, I don't like to be constrained by formal class requirements.

(5) _____ I spend a lot of time just thinking about how things I have learned go together.

(6) _____ Teachers and students should be equals in designing courses.

(7) _____ Fraternities, sororities, and other social groups are an important part of college life.

(8) _____ Most of our public officials are committed to resolving the basic issues facing us today.

(9) _____ I would rather spend an evening with a friend or two than attend a planned social function.

(10) _____ College students should become meaningfully involved in correcting the injustices of our society.

(11) _____ I learn best when a subject is presented in a neat, orderly sequence.

(12) _____ There is nothing like the mastery of particular skills in college to assure one of a rewarding career.

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(13) _____ Teachers are the only ones who should critically judge a student's work.

(14) _____ I like courses in which I can do independent projects and original research.

(15) _____ When I come across a subject that's interesting to me, I frequently follow it up at great length.

(16) _____ Faculty should decide what subjects are important for students to know.

(17) _____ Students who participate in campus organizations and social groups usually have lots of friends and really make the most of their college years.

(18) _____ I'd prefer to maintain a fairly neutral position on controversial issues and keep a "clean" record.

(19) _____ If there weren't established social groups on campus, students would find it difficult to form lasting friendships.

(20) _____ College students who get involved in social and political matters could put that time to better use.

(21) _____ I like a teacher who lets you know regularly just how you're doing.

(22) _____ Obtaining a degree is one of my least important reasons for going to college.

(23) _____ Grades are helpful because they let you know where you stand.

(24) _____ Often I learn more from studying along my own lines than through completing required material.

(25) _____ I would like to study the relationships between several fields rather than learning many facts about just one area.

(26) _____ The faculty should determine how courses are to be organized.

(27) _____ Organized extracurricular activities and organizations seem to me to be largely a waste of time.

(28) _____ Campus protests are self-defeating because they give the college or university a bad name.

(29) _____ I prefer an event that just happens to one which is planned.

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(30) _____ Students should postpone any effort to reform society until after they graduate from college.

(31) _____ I like courses in which my teachers give explicit instructions.

(32) _____ I see no particular urgency about deciding on a major.

(33) _____ In the ideal college or university, there would be no grades.

(34) _____ An academic program is best carried out through an independent study program with some faculty supervision.

(35) _____ Knowing how to learn is more important than knowing what to learn.

(36) _____ Students are generally competent to decide what aspects of a subject are important.

(37) _____ Joining campus groups can be quite useful in terms of a future career.

(38) _____ I think all the talk about the "problems of our society" is blown out of proportion.

(39) _____ I do not especially care for formal dinners, formal dances and other such occasions.

(40) _____ Realistically, students can do little to bring about changes in our society.

(41) _____ College students need a lot of academic guidance so they get started on the right foot.

(42) _____ By deciding early on a major in college, I can concentrate on taking the courses I need to complete the requirements.

(43) _____ Final examinations are not a very adequate measure of the learning which has taken place in a course.

(44) _____ I prefer classroom assignments where topics and approach, etc., are left up to me.

(45) _____ The main reason I am in college is not so much to learn useful information as to acquire insight into the nature of things.

(46) _____ Students should participate significantly in determining the nature and format of their academic program.

(47) _____ Extra-curricular activities such as clubs, interest groups, etc., are an important aspect of college for me.

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(48) _____ Generally, the police in this community are doing a good job and deserve student support.

(49) _____ There should be dorm regulations governing student visitation hours.

(50) _____ I am not especially interested in hearing political speakers who come to the campus.

(51) _____ An academic program is best organized into formal courses, with regular class assignments and examinations.

(52) _____ A high GPA and a fine record of accomplishments are worth the necessary hard work.

(53) _____ Without grades, I would find it difficult to assess my intellectual abilities.

(54) _____ Assignments usually do not give me enough freedom and I would prefer that they be less structured.

(55) _____ To learn to see life and to see it whole - that's the purpose of a college education.

(56) _____ There is a body of knowledge to be learned, and the faculty is more competent than the student to direct the student's course of study.

(57) _____ Active alumni generally render a great service to a college or university.

(58) _____ In a democratic society, the majority can usually be counted on to make the right decisions.

(59) _____ Most college groups tend to be too structured for me.

(60) _____ I feel it is appropriate for students to take stands on social or political issues.

(61) _____ I do my best work when I know what I am supposed to do.

(62) _____ Learning to make a good living is sufficient reason for going to college.

(63) _____ A student's grade is a pretty good indicator of what he has gotten out of a course.

(64) _____ The teacher who wants students to do their best should allow them to pursue their own interests.

(65) _____ I enjoy starting with a topic and digging into every conceivable phase or aspect of that topic.

(66) _____ Students should be given great freedom in choosing their subjects of study.

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(67) _____ Belonging to an organization makes it much easier to meet people.

(68) _____ The society that tries to change too fast is headed for real trouble.

(69) _____ Careful planning is extremely important to the success of a social event.

(70) _____ I am very interested in issues of a social or political nature.

(71) _____ The best way to learn something is to complete course assignments and do the required reading.

(72-79)_____ ID
(80)/1 end card one

(1) _____ The basic reason I'm enrolled in college is because you really need some kind of college education to get along in society today.

(2) _____ If there weren't any pressure on me to get good grades, I might slack off in my academic courses.

(3) _____ I would rather study a subject informally than take a required course in the same subject.

(4) _____ Sometimes one small idea I get in class is worth more than several pages of notes.

(5) _____ Education at its best consists of free-ranging inquiry into areas which appeal to the student.

(6) _____ Intercollegiate athletics are becoming an unimportant and irrelevant aspect of college life.

(7) _____ The main role of higher education is to give people the skills and competencies which society needs.

(8) _____ Organized groups tend to get in the way of spontaneous friendships.

(9) _____ During college I expect to participate in some form of volunteer community service.

(10) _____ I learn best when the instructor's lecture closely follows the assigned readings.

(11) _____ More college courses should be geared to the kind of job a student wants after college.

(12) _____ Grades are more of a subjective judgment of a student rather than an evaluation of what he has actually learned.

(13) _____ Instead of taking a regular course, I would rather have an individually-tailored "learning contract" with a faculty member.

(over)

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(14) _____ I consider many viewpoints on a given topic and think about what if anything they all have in common.

(15) _____ Students should be encouraged to propose and develop courses and receive academic credit for them.

(16) _____ I think college activities and groups do a lot to help students develop more school spirit and loyalty.

(17) _____ Most of our public agencies are responsive to the needs of its citizenry.

(18) _____ I seldom attend the meetings of campus organizations.

(19) _____ I would support and participate in a student lobby group which works for socio-political change off-campus.

(20) _____ Lectures are the best way to learn because they pinpoint what is important for students to know.

(21) _____ One should study as much as possible in order to learn a great deal about his major or career field.

(22) _____ I would like to have an independent study experience which would involve off-campus study.

(23) _____ I would like to gain "credit by examination" in areas in which I am competent rather than registering for a formal course.

(24) _____ I like to discuss various philosophical and theoretical issues with faculty and other students.

(25) _____ Students have the interest and ability to plan undergraduate programs in cooperation with faculty.

(26) _____ Large-scale campus events are usually quite impersonal.

(27) _____ Student fees should not be used to support various campus organizations and clubs.

(28) _____ I like to study a given theory or new "discovery" and consider what implications it may have for the future.

(29) _____ Students should be involved with faculty in establishing degree and graduation requirements.

(30-71) ⊬
(72-79)_____ ID
(80)/2 end card two